

Partnering for Sustainable Resource Management

Newsletter 1
September 2004

Tl'azt'en and UNBC Join in Partnership!

Welcome to our CURA Newsletter for the Tl'azt'en Nation - UNBC research alliance, *Partnering for Sustainable Resource Management*. This newsletter is designed to share the progress and results of our partnership on an ongoing basis. We plan to publish this newsletter every six months and to distribute it to a wide range of interested people, communities, and organizations. We also produce a small *Community Update* for Tl'azt'en Nation and UNBC partners twice annually.

Through the work of the partners, a wide range of benefits for Tl'azt'en Nation and UNBC are expected. Major outcomes of this CURA include: cross-cultural sharing and learning, supporting Tl'azt'en social and economic development aspirations, education and training for students of many ages, promoting Tl'azt'en cultural renewal efforts, enhanced research capacity for UNBC faculty and Tl'azt'enne, and research results relevant to local people as well as national and international audiences.

More information on the CURA project can be found at our website, <http://cura.unbc.ca>. If you have any comments or would like to get involved, please contact Bev Leon, Sarah Parsons, or Erin Sherry, the CURA coordinators (see contact information below).

In this edition...

- ☛ First annual retreat
- ☛ Summer student perspectives
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- ☛ TLC program for Tl'azt'en youth

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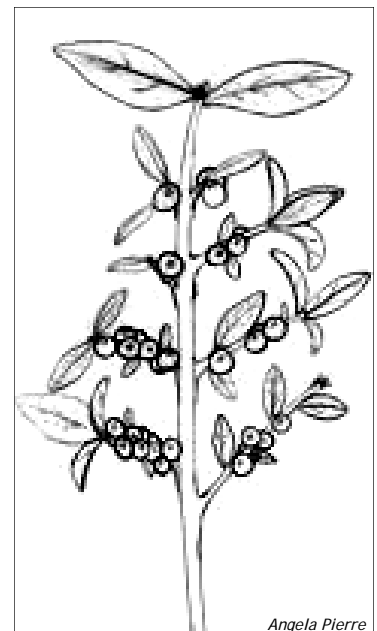
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More information can be found on the CURA Project on our website at:
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Research Streams

In late 2003, Tl'azt'en Nation and the University of Northern British Columbia were awarded a major, 5-year grant from the Social Sciences and Humanities Research Council of Canada. This grant, called Community-University Research Alliance (CURA), is for communities and universities to work together to address community challenges that could be helped by university research. Our proposal, *Partnering for Sustainable Resource Management*, was developed by a team of Tl'azt'en and UNBC persons working together. It identifies four areas of research:

- ☛ **Improving partnerships** between Tl'azt'en Nation and UNBC, particularly around co-management of the John Prince Research Forest;
- ☛ Working toward the perpetuation of **Traditional Ecological Knowledge**, including its preservation and transmission to Tl'azt'en youth;
- ☛ Making **science education** delivery more relevant and thus attractive to Tl'azt'en youth, and;
- ☛ Looking into opportunities for **developing ecotourism** as one economic alternative to heavy dependence on the forestry sector



Botanical drawing of *ningwus* (also known as Soapberry, or *Shepherdia canadensis*)

See more botanical drawings by Angela Pierre on page 6

CURA Annual Retreat



Beverly Leon, Research Coordinator and IP Stream Leader, and Summer Student Shaunna Pierre keeping minutes of the meeting.



Traditional Ecological Knowledge (TEK) Stream Leaders Beverly Bird and Jane Young relaxing by the lake.



Sue Grainger, JPRF manager and CURA co-investigator, and Dexter Hodder, JPRF staff, discussing culturally modified trees along a traditional trail at the JPRF. Dexter along with Johnny Tom (JPRF staff) took the group on a tour of the area.

On August 16, 2004 CURA Steering Committee members, students, research assistants, and Tl'azt'en Learning Circle staff took part in the first CURA annual retreat at Cinnabar Research Station and Resort on the John Prince Research Forest. Following the morning meeting, participants enjoyed lunch on the shore of Tezzeron Lake. Jen Pierre whipped up a batch of *ningwus* (soapberries) for everyone to share. CURA members then hiked along a traditional trail, visiting pit houses, tree caches, and culturally modified trees. The day was enjoyed by all!



Summer research assistants Sophia Raby, Jennifer Pierre, and Sarah Parsons (also CURA coordinator) having a picnic lunch at the lake.



Tl'azt'en Learning Circle staff with Angela Pierre, observed at the meeting, and spoke to the Steering Committee about their activities over the past year.

PRESERVING CULTURE: Traditional Knowledge Stream

The research stream, *Perpetuation of Tl'azt'en Ecological Knowledge*, is researching methods of recording and preserving traditional knowledge. We are reviewing information and providing recommendations for developing these methods further. A major objective of this research is for Tl'azt'en Nation to record and perpetuate their Traditional Ecological Knowledge (TEK). The study will further Tl'azt'en's goals in developing curriculum material to enhance educational objectives and also provide input into Tl'azt'en resource management. Three areas of TEK that are being researched are medicinal uses of plants, place names, and forest health.



Dr. Jane Young, UNBC Stream Co-Leader—Traditional Ecological Knowledge

The information gathered through TEK, such as medicinal uses of plants, will also increase the knowledge of UNBC researchers. For example, one of the first objectives of this area of the CURA project was to prepare an annotated bibliography of medicinal plant knowledge of First Nations of Interior British Columbia. Lana Wilhelm, a UNBC undergraduate student, was hired as a CURA research assistant in the January 2004. She collected articles from books and journals and prepared the bibliogra-

phy using the computer software *Endnote*. The collection of papers will be housed in both Tache and UNBC. Jane Young (UNBC TEK research stream co-leader) will be instructing Beverly Bird (Tl'azt'en TEK research stream co-leader) on how to use *Endnote* so that she can train and work with staff to maintain the Tl'azt'en Nation Treaty office reference library.

Jane Young conducted a workshop on May 31st, for Tl'azt'en Research Assistants on introductory plant biology and identification. The workshop included instruction on how plants are collected from the wild. There was also a demonstration on how the representative wild plant specimens are made into herbarium specimens (plants that are dried and glued onto sheets of paper to be preserved for future use). The specimens will be part of a larger herbarium which will be developed in the second year of the CURA project.

Angela Pierre, a CURA Education stream summer research assistant, has made drawings of plants used by Elders. These drawings will be important for insertion into the herbarium with the dried representative plants.

Karen Heikkila, a UNBC graduate student and educator, has been involved in the collection of TEK contained in Tl'azt'en place names. This took place within the John Prince Research Forest study area where she worked with Tl'azt'en community members under the guidance of Beverly Bird. Karen is looking into how place name information might be used to develop science camp curriculum and through this work, provide Tl'azt'en Nation with a model of how other place names from the traditional territory can be examined and used in education. She began her place names fieldwork in the spring of 2004 and finished gathering data in

July. Treaty office collections, including Elders' interviews and previously developed databases on place names, were examined, after which she conducted interviews with sev-



Ms. Beverly Bird, Tl'azt'en Nation Stream Co-Leader—Traditional Ecological Knowledge

eral Tl'azt'en cultural experts to gather supplemental information. Among those interviewed were Margaret Mattess and Pauline Joseph, Tl'azt'en Language and Culture instructors at Eugene Joseph Elementary School, both of whom were involved in research on place names from the Dzitl'ainli (Middle River) area. Karen also had the pleasure of working with Mona Anatole and Morris Joseph, Tl'azt'en Treaty researchers, who are currently completing place names research on the Tl'azt'en traditional territory, as a whole.

Under the TEK stream, future graduate students and Tl'azt'en research assistants will be trained in the classification of ecosystems where species of interest are found. They will also learn interview methods, and develop and practice interview protocols with TEK experts. Funds are available for graduate work in the TEK area starting in 2005. Jane Young and Beverly Bird will be advertising this position shortly.

SUPPORTING CO-OPERATION: Improved Partnerships Stream

The *Improved Partnerships (IP)* stream is designed 1) to create and evaluate methods to develop local-level criteria and indicators (C&I) and 2) to produce a flexible set of C&I to direct, monitor, and evaluate co-management arrangements, particularly those involving First Nations. The John Prince Research Forest (JPRF), an equal partnership between Tl'azt'en Nation and the University of Northern BC (UNBC), is used as a case to explore these methods and essential elements. In practical terms, this research has potential to contribute to successful JPRF co-management. Findings may also have broader relevance to community involvement in forest management, sustainability monitoring and assessment, and partnership building.

Co-management, which involves sharing of responsibilities and benefits between two or more groups, provides an alternative and increasingly popular approach to resource management. It is often promoted as a way to improve fairness and long-term sustainability of resource use, in part by harnessing different systems of knowledge and decision-making. As a relatively new approach, co-management remains a social and institutional experiment. Co-management processes and outcomes require continued monitoring, evaluation and adaptation to ensure success.

During Phase 1 of this project, Tl'azt'en perspectives on sustainable forest management were identified through analysis of archival materials. We also reviewed the global literature on co-management to pick out criteria of success. Phase 2 involved interviews with 65 experts (recommended as knowledgeable, interested, and respected people) from Tl'azt'en Nation, UNBC, Fort St. James, and the Prince George area. These participants identified critical values concerning the processes and outcomes of co-management. We are in the midst of processing and analysing this information.

Thanks to generous funding from the

Prince George Nechako Aboriginal Employment and Training Association, Tl'azt'en Nation Education, and the Northern Aboriginal Research and Development Alliance at UNBC, the IP stream employed four students this summer. Jennifer Pierre, a post-secondary student, worked on transcribing, editing, verifying, and summarizing interview information from research participants. Two grade 12 Tl'azt'en high school students, Stephanie Holmes and Shauna Pierre, were employed for four weeks as project research assistants. Sarah Parsons, who will begin her Master's degree at UNBC this fall in the IP stream, focused her time on analysing interviews to identify local values related to JPRF outcomes and benefits. Each student succeeded in reaching their employment goals and each made important contributions to the quality and success of our research.

To prepare for the upcoming research phase, IP staff participated in survey research training in early August. During this 3-day workshop, participants were taught step-by-step how to build and conduct a successful survey research program. They learned about survey design and sampling, methods of data collection, how to ask survey questions, how to format a questionnaire, pre-testing, sources of error, and survey administration.

At the end of August, IP staff participated in UNBC's *Natural Resource Management Field Camp*. They provided a module, poster session and field exercise to 30 students on assessing and understanding local perspectives on good forest management. Further, interview results from Phase 2 research were used as the basis for the student case study, the major field

camp assignment. This is a significant contribution to senior undergraduate curriculum at UNBC and to realistic, hands-on learning opportunities for future resource managers.



Dr. Erin Sherry working with IP staff on designing a survey for prioritizing outcomes of JPRF co-management.

In the upcoming months, the *Improved Partnerships* stream will conduct a survey with 110 members of Tl'azt'en Nation and UNBC to prioritise local values concerning co-management outcomes and benefits. Economic, social, cultural, and environmental themes will be addressed. We look forward to continuing our work with members of both communities to enhance understanding of sustainable co-management.



Improved Partnership Staff (left to right) Back row: Beverly Leon, Sarah Parsons, and Jennifer Pierre; Front: Erin Sherry and Shauna Pierre



Hadi' My name is Jennifer Pierre. I am a Tl'azt'en Nation post-secondary student working as a research assistant on the Community University Research Alliance (CURA) project in the *Improved Partnerships* stream. I am sad to say that my summer job will soon be ending! I will be returning to school in September to finish my program at the College of New Caledonia in Hospitality Administration. I have learned a lot in the 3 months that I have been here. I have gained tremendous insight into what people want to see come from this partnership and their opinions on the process and outcomes of forest co-management.

I have been transcribing interview tapes, editing transcripts, and analyzing transcripts to develop tape summaries, which will be archived with Tl'azt'en Nation and UNBC according to interview participants' wishes. I have completed practical field training in Tache such as *First Aid Level One with Transportation Endorsement* and *Bear Aware*, and have undertaken research training in *Survey Methods* at UNBC. I have also acquired a particular understanding of supervising and assigning tasks to Tl'azt'en Nation high school summer students that have been hired on the project. When Stephanie Holmes finished her 4-week summer job, I had the chance to work with Shaunna Pierre, another Grade 11 student hired to carry on with the tasks and duties to help out with our work load.

Student View: Improved Partnerships

I have also been working on the expert nomination list for our survey to prioritize local values related to JPRF co-management benefits. I look forward to meeting with the people in the community. A CURA logo contest will be held in the future and I have been working on the guidelines and regulations for that project. I enjoyed participating in our CURA annual retreat, held on the John Prince Research Forest at the Cinnabar Resort. Here, I made *ningwus*; Tl'azt'enne call it Indian Ice Cream.

In the mean time, I am still working on the tape summaries and working between the communities of Tache, Prince George, and Fort St. James. In the fall, I will continue as a part-time research assistant on the *Im-*

proved Partnerships stream; my future endeavors will include conducting Internet research on other local-level co-management regimes, training in website development, completing survey design and development, conducting the survey with experts from Tl'azt'en Nation and UNBC, and working closely with community members. I hope to return to my community once my last semester is completed; I would like to contribute my learning to Tl'azt'enne as thanks for their support of my education. I would like to receive more cultural education and knowledge to advance personally and professionally. I hope to be one of the people to make the future aspirations I am learning about through the CURA project a reality for Tl'azt'en Nation.

"I gained a lot being employed on the Improved Partnerships stream of the CURA project. It has enlightened my views and has enabled me to assist a partnership which can benefit the people of Tl'azt'en and UNBC. This project is greatly needed in the preservation of culture, language, and arts."
- Jennifer Pierre



Students Jennifer Pierre and Shaunna Pierre participated in UNBC's Natural Resources Management Field Camp, a course held annually at the John Prince Research Forest. They assisted Dr. Erin Sherry and Beverly Leon (IP Stream Leaders) in presenting preliminary findings of our research on co-management. UNBC students used CURA research findings as a tool for their assignment on forest management planning (above).

SCIENCE AND TRADITION: Education Stream

Education combines what is learned and how it is learned or taught. It incorporates the values, expectations, knowledge, and culture of the community developing it. For young people it develops who they are, where they come from, and how they relate to others and to their physical world.

The Education Stream will explore and develop educational programming that integrates scientific and Traditional Ecological Knowledge (TEK) in order to build TI'azt'en capacity for resource management. A sustainable future includes healthy communities and effective resource management, and requires the use and integration of both TEK and scientific knowledge. TI'azt'enne have identified a gap in the transfer of their Traditional Ecological Knowledge (TEK) from older to younger generations. They also see challenges

for their students in attaining the science and math skills necessary to become future professional resource managers. Meeting these challenges will allow members of TI'azt'en Nation to contribute holistically to the management of TI'azt'en territory.

Debbie Page (TI'azt'en Education) and Chris Jackson (UNBC) are working to develop educational programming that will excite community students about learning. These programs are intended to support the transfer of TEK, develop a multicultural understanding of science, and improve educational outcomes from TI'azt'en youth. Our first year will allow us to set the stage by defining the TEK resources that are available for curriculum development, investigating community educational values, and exploring solutions from other areas that might serve as useful models for this project.

This summer the Education Stream and the Traditional Ecological Knowledge Stream are supported by the work of two summer students. Sophia Raby, a recent UNBC Geography graduate, and Angela Pierre, a CNC Fine Arts student, have been contributing their talents to the project.

Sophia has been collecting and compiling information about similar educational projects and developing an annotated searchable database. Her article (page 7) summarizes some of the things she's been finding. In the fall, this information will be available in Tache and Prince George. Angela has been working to identify existing TI'azt'en TEK. She has also contributed her artistic skills to create scientific drawings of medicinal plants for TEK-science curriculum development. Some examples of her work are shown on this page.



Angela Pierre

Common name: Devil's Club,
Latin name: *Oplopanax horridus*
Dakelh name: Hoolhgulh



Research Stream Leaders Chris Jackson (left) and Deborah Page (right) along with a group of TI'azt'en youth received training in the use and management of archival information from Ramona Rose, head of Archives and Special Collections at UNBC.



Angela Pierre

Common Name: High bush cranberry
Latin name: *Viburnum edule*
Dakelh name: Tsalhtse'



Angela Pierre, TI'azt'en Research Assistant, Education Stream, prepared these botanical drawings of plants traditionally used by TI'azt'enne as sources of food and medicine.

Student View: Aboriginal Education

By Sophia Raby

Working as a research assistant under the CURA Education Stream introduced me to topics in Aboriginal education. My main task involved collecting and reviewing information that addresses the idea of integrating TEK and science or

“multicultural education”. What *is* a multicultural education? Most authors claim that education today is westernized, meaning that European worldviews tend to dominate all other worldviews. In this type of setting, a child who does not come from a westernized background is disadvantaged.

They are taught western concepts using western teaching methods, which leaves their culture unrecognized. A multicultural education encourages the presence of other worldviews, allowing Aboriginal perspectives and teaching methods to be respected and valued.

The relationship between Aboriginal education and science was best explained by Dr. Glen Aikenhead. He adopts the idea of “cultural border-crossing” and shows how the western education system forces Aboriginal students to regularly

cross a cultural border. An example of this concept is to imagine yourself in a foreign country, where your language, cultural values and way of life are not familiar. You misinterpret what is happening around you and have difficulty making yourself understood. Aikenhead argues that this idea also occurs in the classroom. The dominant culture of science contrasts with Aboriginal observations and worldviews, making it difficult for Aboriginal students to grasp scientific concepts which are not sensitive to Aboriginal worldviews. In this situation, it is the teacher’s responsibility to act as a “tourist guide”. By incorporating Aboriginal perspectives, the teacher can effectively help students cross these cultural borders or provide “both-ways” education.

Similar barriers were identified in work by Anthony Ezeife, who claims that the low enrolment and poor performance amongst indigenous students in science is related to the failure of the curriculum to incorporate the learner’s environment. He argues that scientific concepts are made almost foreign to the indigenous child because these concepts do not consider what the child’s day-to-day experiences are. For example, according to Anthony, an excellent science curriculum is one that includes how the indigenous child was raised. By using oral traditions as a teaching method, and by

encouraging students to use their experiences and culture when learning science, Anthony suggests that enrolment and performance levels of indigenous children will increase.

Through collecting articles such as these, I have found many suggestions and models for improving performance levels and enrolment rates in science education amongst Aboriginal children. One example is the Amiskwaciy (pronounced a-misk-wa-chee) Academy School in Edmonton. It has tremendous success and graduation rates amongst its Aboriginal students. What is this school doing right? For one, the school actually encourages the incorporation of Aboriginal traditions, history and cultural values of its students into core subjects, like science. It also offers culturally inspiring programming options in subjects such as Cree language, dance and Aboriginal Studies.

It’s been an honor to be able to work on this project. As I enter UNBC’s Education program this fall, I will bring with me all that I have learned about this field. I now understand the importance of a multicultural education and how to integrate Aboriginal perspectives into the classroom.



Sophia Raby, UNBC Research Assistant, Environmental/Science Education Stream attending the CURA Steering Committee Meeting at the Cinnabar Resort, on August 16th.

Community News: Tl'azt'en Learning Circle

by Treena Austin

The Tl'azt'en Learning Circle (TLC) is a program dedicated to the preservation and perpetuation of Tl'azt'en language and cultural practices. TLC works in partnership with the University of British Columbia, Continuing Medical Education program, with support from the British Columbia Ministry of Management Services. In recent months, CURA has also contributed to this program through training, expertise, and financial support.

The Tl'azt'en Learning Circle is working with CURA's Traditional Ecological Knowledge and Education streams. Five Tl'azt'en youth (including myself) are employed at TLC as Production/Research Assistants (PRAs). We receive training from Theresa Austin, the Language and Cultural Instructor. Deborah Page is the Program Manager and the community partner on the Education Stream of CURA.



Treena Austin, a Production/Research Assistant at Tl'azt'en Learning Circle in Tache

On December 12, 2003, eight Tl'azt'en youth were hired, and we were trained in research and web design. We also study Dakelh language for 1½ hours a day as learning our language is extremely important. We learned about medicinal plants including where and how to gather them, what each plant is used for, and how to prepare the medicine. This first phase of the program was very successful. The PRAs gained a lot of experience and were then able to take this knowledge and put it to use.

We have been very successful at learning the web design programs (see our web page at www.tlc.baremetal.com). Nathan has also taken a GPS/GIS course at UNBC in Prince George. He learned how to make maps, and how to pinpoint locations on the ground to transfer to a map. This will be an important skill as we map out our traditional territory. Although she has a new job now, Veronica Cambell still attends Carrier classes with us, assisting Theresa. The PRAs are a very intelligent group; we have succeeded in

everything taught to us and we are eager to learn more.

Over the summer we have been involved in a lot of workshops and other activities that were held in Tache and surrounding areas of Fort St. James and Prince George.

June 21st, 2004 Tl'azt'en held the Aboriginal Day in Tache at the Eugene Joseph Elementary School. We presented a slide show and set up a display of work we have done. We presented some medicinal plants and gave traditional medicine samples to the visitors. Pauline Joseph, Cultural Teacher at Eugene Joseph, held a mock potlatch and students gave out gifts to the participants. They also did an appreciation for the students from Fort St. James for attending.

July 13th, 2004 at a science camp on the JPRF, we taught youth which plants are used for medicine and how to recognize differences in plants. Some plants look the same, but can be lethal if you choose the wrong one. We prepared a booklet for the students describing the most common plants and trees, and the uses of each plant. The youth were fascinated with what we were doing – they had a lot of questions for us. This was a very successful project!

July 19 - 22nd, 2004 we traveled to Prince George to attend the Language Revival workshop at UNBC. We set up a display about our project and how it is connected to language revival. We showed participants our website, told them how we built it and how we will develop it further. We got a great response from visitors and were satisfied on how it turned out.

August 4th, 2004 we were asked to present at the post secondary student's orientation for all Tl'azt'en students going to college or university. This event is held every year to orient students with the community resources and staff. We presented our

work and stressed the importance of Tl'azt'en language and culture in the school curriculum.

August 5-6, 2004 all of the TLC staff attended the Tl'azt'en Annual General Assembly, an event held for community members to hear an update from staff and address their concerns to the Chief and Council. This was a chance for us to share our project with the community as a whole. Deborah described our accomplishments, and the PRAs introduced themselves to the community. Speaking for myself, I was so nervous that I was barely able to say my name, let alone what I want to get from this project. But all in all it was good for the project, because everyone knows what we are doing now. We also got to participate in welcoming Mary Schaultz back to the community. She was adopted as a child and did not know where she was from. Recently, she has found out that she is a Tl'azt'enne, and has come home to us. She told the community her story, and was warmly welcomed back.

Throughout the summer we have been going out 2-3 times a week to study, collect and photograph medicinal plants. We also went to Battleship Island to see pictographs created by our ancestors, which was amazing.

If you would like more information, visit our website at www.tlc.baremetal.com. We also have biographies and contact information for each of the PRAs. Please feel free to get in touch with us!



Tl'azt'en Learning Circle's Production/Research Assistants (left to right): Kateri Haskel, Kimberly Johnnie, Annie Anatole, and Treena Austin with Tl'azt'en Elders and community members at a Language Revival Workshop at UNBC